

In the Claims:

Please cancel claims 1, 4 and 7-19, without prejudice or disclaimer thereof.

In accordance with 37 C.F.R. § 1.121, please substitute for claims 2-3, 5-6 and 22, the following rewritten versions of the same claims. All changes are explicitly shown in the attached "Marked-Up Version of the Claims."

Claim 2. (Amended) A nucleic acid containing a sequence encoding a protein tyrosine phosphatase which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1.

Claim 3. (Amended) An isolated nucleic acid molecule containing a sequence encoding a protein tyrosine phosphatase which is associated with Lafora's disease comprising

(a) a nucleic acid sequence as shown in SEQ.ID.NO.:1, wherein T can also be U;

(b) nucleic acid sequences complementary to (a); or

(c) a nucleic acid molecule differing from any of the nucleic acids of (a) or (b) in codon sequences due to the degeneracy of the genetic code.

Claim 5. (Amended) An isolated nucleic acid molecule containing a sequence encoding a protein tyrosine phosphatase which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:3.

Claim 6. (Amended) An isolated nucleic acid molecule containing a sequence encoding a protein tyrosine phosphatase which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:5.

Claim 22. (Amended) An isolated nucleic acid molecule which hybridizes to a nucleic acid sequence set forth in SEQ.ID.NO.:1, SEQ.ID.NO.:3, or SEQ.ID.NO.:5, wherein the hybridization first occurs

in a solution of 6 x SSC at about 45°C, followed by a wash in a solution of 2 x SSC at 50°C, wherein said sequence contains a sequence encoding a protein tyrosine phosphatase which is associated with Lafora's disease.

Please add the following new claims 23-35.

Claim 23. (New) An isolated nucleic acid molecule containing a sequence which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1 wherein nucleotide C at position 721 is replaced with nucleotide T.

Claim 24. (New) An isolated nucleic acid molecule containing a sequence which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1 wherein there is an insertion of a nucleotide A at position 800.

Claim 25. (New) An isolated nucleic acid molecule containing a sequence which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1 wherein nucleotide G at position 836 is replaced with nucleotide A.

Claim 26. (New) An isolated nucleic acid molecule containing a sequence which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1 wherein nucleotide C at position 163 is replaced with nucleotide T.

Claim 27. (New) An isolated nucleic acid molecule containing a sequence which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1 wherein nucleotide T at position 94 is replaced with nucleotide G.

Claim 28. (New) An isolated nucleic acid molecule containing a sequence which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1 wherein nucleotide A at position 146 is replaced with nucleotide G.

Claim 29. (New) An isolated nucleic acid molecule containing a sequence which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1 wherein nucleotide G at position 412 is replaced with nucleotide T.

Claim 30. (New) An isolated nucleic acid molecule containing a sequence which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1 wherein nucleotide A at position 878 is replaced with nucleotide T.

Claim 31. (New) An isolated nucleic acid molecule containing a sequence which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1 wherein nucleotide G at position 235 is deleted.

Claim 32. (New) An isolated nucleic acid molecule containing a sequence which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1 wherein nucleotide G at position 179 is replaced with nucleotide A.

Claim 33. (New) An isolated nucleic acid molecule containing a sequence which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1 wherein nucleotide C at position 322 is replaced with nucleotide T.

Claim 34. (New) An isolated nucleic acid molecule containing a sequence which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1 wherein there is a deletion of exons 1 and 2.

Claim 35. (New) An isolated nucleic acid molecule containing a sequence which is associated with Lafora's disease having a sequence as shown in SEQ.ID.NO.:1 wherein there is a deletion of exon 2.